

## ABSTRACT

A system and method that manages and pre-optimizes incoming database queries by decomposing queries into component parts, and executing corresponding pre-compiled procedures. A requestor specifies search arguments and/or query options. Middle tier code cooperates with database code by decomposing the query operations into stages, one stage for each specified search argument. To improve performance, the stages are ordered such that the most selective searches are executed first, and if after any stage it is recognized that no results are possible, the search terminates without attempting further stages. As each stage is executed, a list of matching keys is maintained in the database. After completing the stages, the list is sorted as specified and returned to the middle tier, which then retrieves the details for each entity represented in the key list, and formats and returns the results to the client. Relatively complex queries may be submitted without executing ad-hoc queries.